



520 Tolling Implementation Committee

Washington State Transportation Commission

Wednesday, October 22, 2008

**David Hopkins, Director, Government
Relations and Communications, Urban
Corridors Office, WSDOT**

Staff to the Tolling Implementation Committee

Committee members



Bob Drewel, Chair

Puget Sound
Regional Council



Paula Hammond

Washington State
Department of
Transportation
Secretary



Dick Ford

Washington State
Transportation
Commission

Committee charge – ESHB 3096

- Evaluate
 - Traffic diversion from 520 to other routes, including 522, and recommend mitigation
 - Advanced tolling technology
 - New applications of emerging technology to better manage traffic
- Explore opportunities to partner with the business community to reduce congestion and contribute financially
- Confer with mayors and city councils
- Conduct public work sessions and open houses to solicit citizen views on tolling the existing 520 bridge, tolling both 90 and 520, providing incentives for transit and carpooling, implementing variable tolling
- Provide a report to the governor and legislature in January 2009

Tolling Implementation Committee charge - engagement

Engage citizens on the following topics:

- Funding a portion of the 520 replacement project with tolls on the existing bridge
- Funding the 520 replacement project and improvements on the 90 Bridge with a toll paid by drivers on both bridges
- Providing incentives and choices for transit and carpooling
- Implementing variable tolling as a way to reduce congestion



We need to build a new 520



Construction on a new 520 begins in 2009

New Bridge Open to Drivers in 2014

• Begin pontoon construction at existing site.	• Purchase 45 new buses for corridor.	• Begin early Eastside improvements. A	• Begin pontoon construction at new site.	• Begin floating bridge construction. C	• Open six-lane corridor to drivers.				
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
		• Begin construction of new pontoon construction site. • Complete corridor environmental process.		• Begin corridor construction. B		• Open new bridge to drivers.			• Project complete.



Project Cost Information

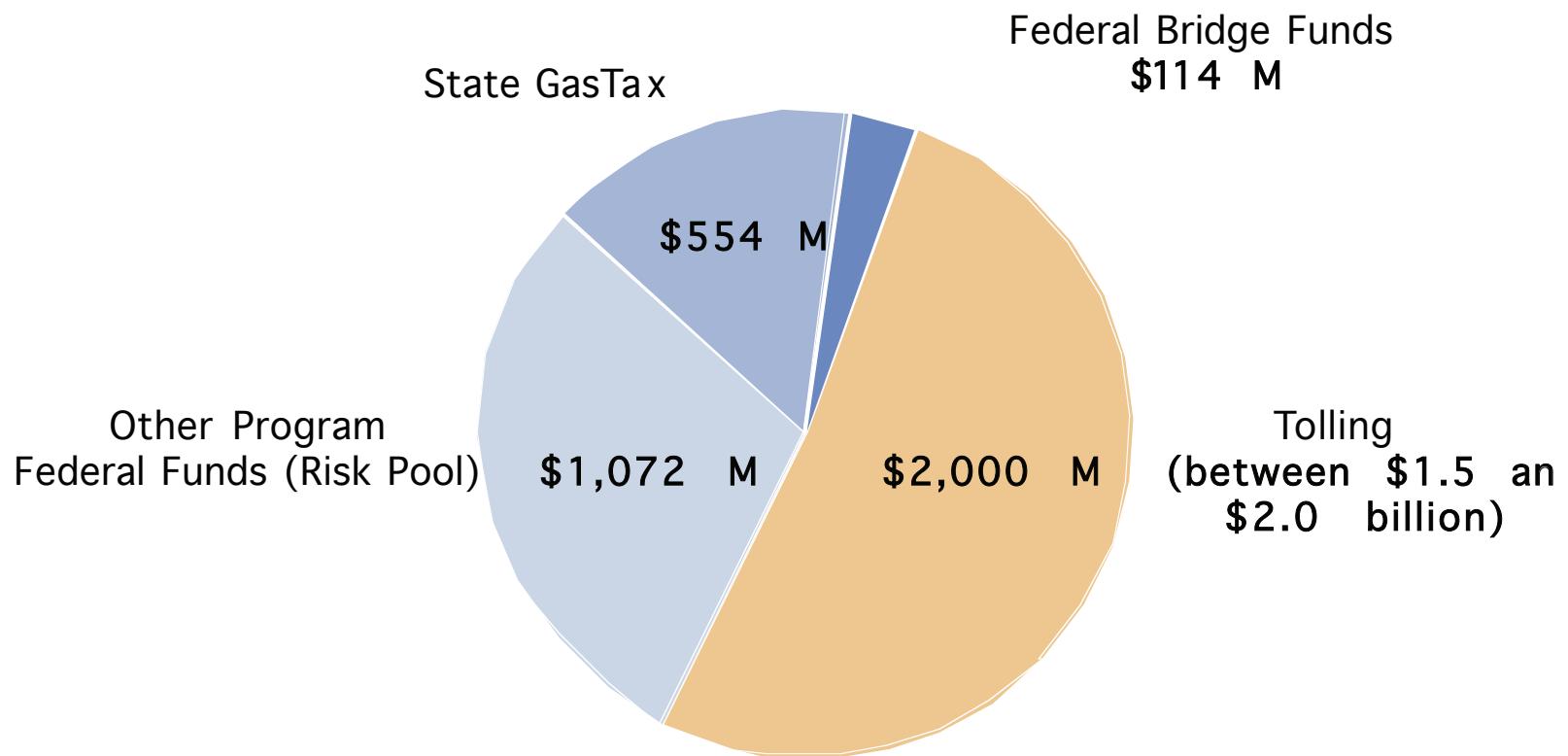
2006 cost estimate:	\$4.38 billion
Estimated savings:	\$500 - \$700 million*
New projected cost:	\$3.7 - \$3.9 billion

*Savings are due to accelerating project schedule and reducing the number of pontoons

How will we pay for a new bridge?

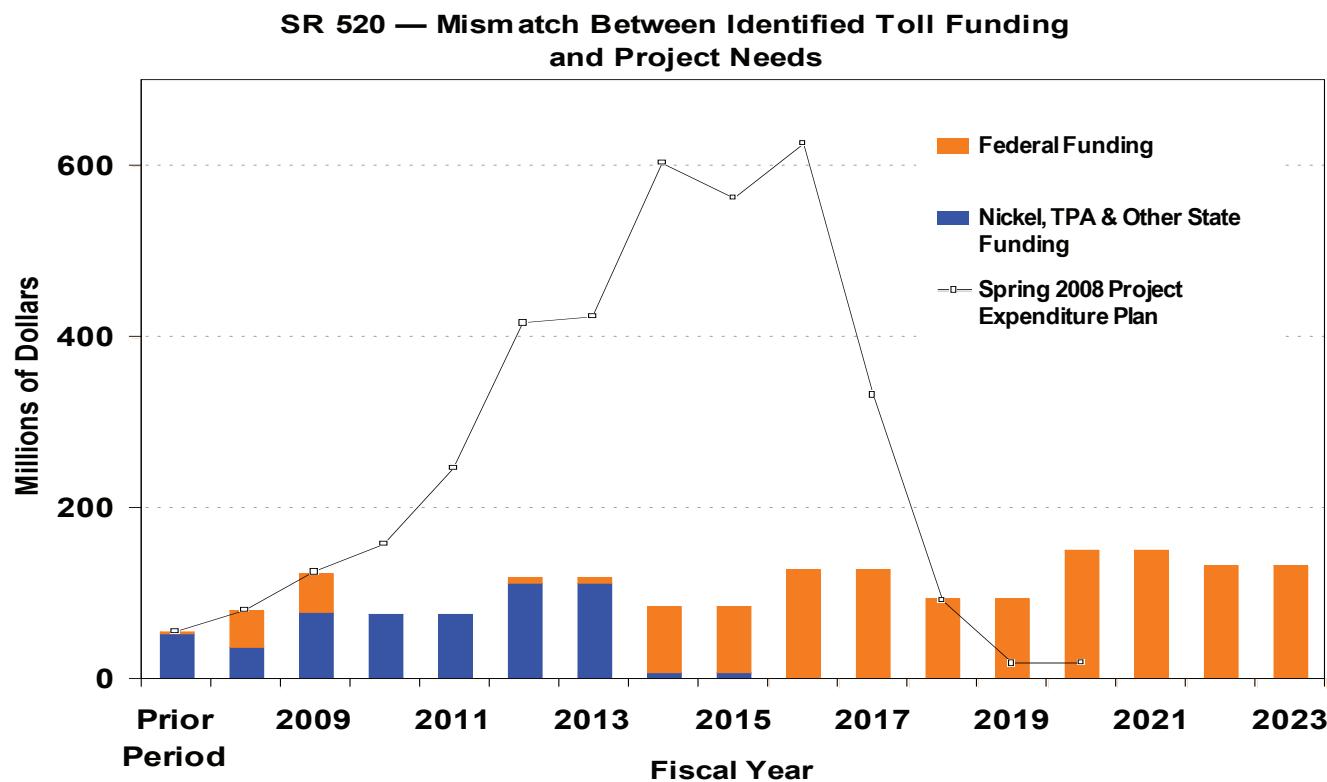
Funding sources identified by legislature in ESH

Project estimate: \$3.7 - 3.9 billion*



* Low end of range reflects \$180 million in sales tax deferral

Timing of available state and federal funds



Not only must we consider the funding gap in total, we need to consider the timing of when money is needed.

Congestion benefits of electronic tolls that vary by time of day



- **Electronic tolling** eliminates:
 - congestion caused by toll booths;
 - toll booth related accidents;
 - need for additional costly right of way in this congested corridor; and
 - costly cash collection.
- **Variable tolling** reduces congestion by:
 - encouraging people who can to switch to off-peak times; and
 - encouraging as many people as possible to remain on the bridge during the off peak to minimize diversion to other routes
- **Paying Tolls:**
 - Majority of transactions will be *Good To Go!* account holders using transponders.
 - Vehicles without transponders have license plates photographed and can prepay or be invoiced for the toll, which will include an administrative fee.

What evaluation criteria are being considered?

- The “reasonableness” of the tolls
- How much bridge funding is generated
- The diversion effects of tolls – people can choose to:
 - Stay on 520 but switch to carpool or transit
 - Stay on 520 but switch to different times
 - Travel on different routes
 - Choose a different destination – don’t have to cross the lake
- The performance of the bridge (potential congestion relief)
- The impacts tolls may have on low income bridge users

Which initial scenarios were examined?

1

Start tolling the new 520 bridge in 2016

Only 520 is tolled • Tolling begins in 2016 when the 520 corridor is complete • Includes bridge and segment tolls • Highest toll rate for analysis purposes

2

Start tolling the 520 bridge in 2010

Only 520 is tolled • Tolling the existing bridge begins in 2010 • No segment tolls • Lowest toll rate for analysis purposes

3

Start tolling the new 520 bridge and 90 bridge in 2016

520 and I-90 are tolled • Tolling begins in 2016 when the 520 corridor is complete • Includes segment tolls beginning in 2016 on 520 and 90 • Moderate toll rate for analysis purposes

4

Start tolling the 520 bridge in 2010, and 90 bridge in 2016

SR 520 and I-90 are tolled • Tolling the existing SR 520 bridge begins in 2010 • Includes segment tolls beginning in 2016 on 520 (when the corridor is complete) and 90 • Moderate toll rate for analysis purposes

How were the preliminary estimates developed?

Traffic

- The PSRC travel model estimates how traffic changes when tolls are in place. Fundamental assumptions used in the model include:
 - Population and employment
 - Travel costs (auto operating costs, parking costs, transit fares, etc.)
 - Land use
 - Travel behavior (public surveys, validated by observed travel data)
 - Characteristics of the transportation system (current and future road and transit services)

Revenue

- Sample toll rates + Projected travel used to estimate revenue

Financing/Funding

- Tolls revenues + Bonding assumptions + Cash flow needs + Sound financial practices = Financing estimates (supported by analysis from the Office of State Treasurer)

Scenario 1. Start tolls on new 520 in 2016



Time of day	Toll you'd pay (each direction) 2007\$*
Morning (5–9 AM)	\$3.05
Mid-day (9 AM–3 PM)	\$2.10
Afternoon (3–7 PM)	\$3.80
Evenings (7–10 PM)	\$1.95
Nights (10 PM–5 AM)	\$0.90
Weekends	Varies from \$.75 to \$1.50
Segment	Varies from \$0.40 to \$0.80
<i>Estimated funding</i>	<i>~\$835 million</i>

Scenario 1. Start tolls on new 520 in 2016

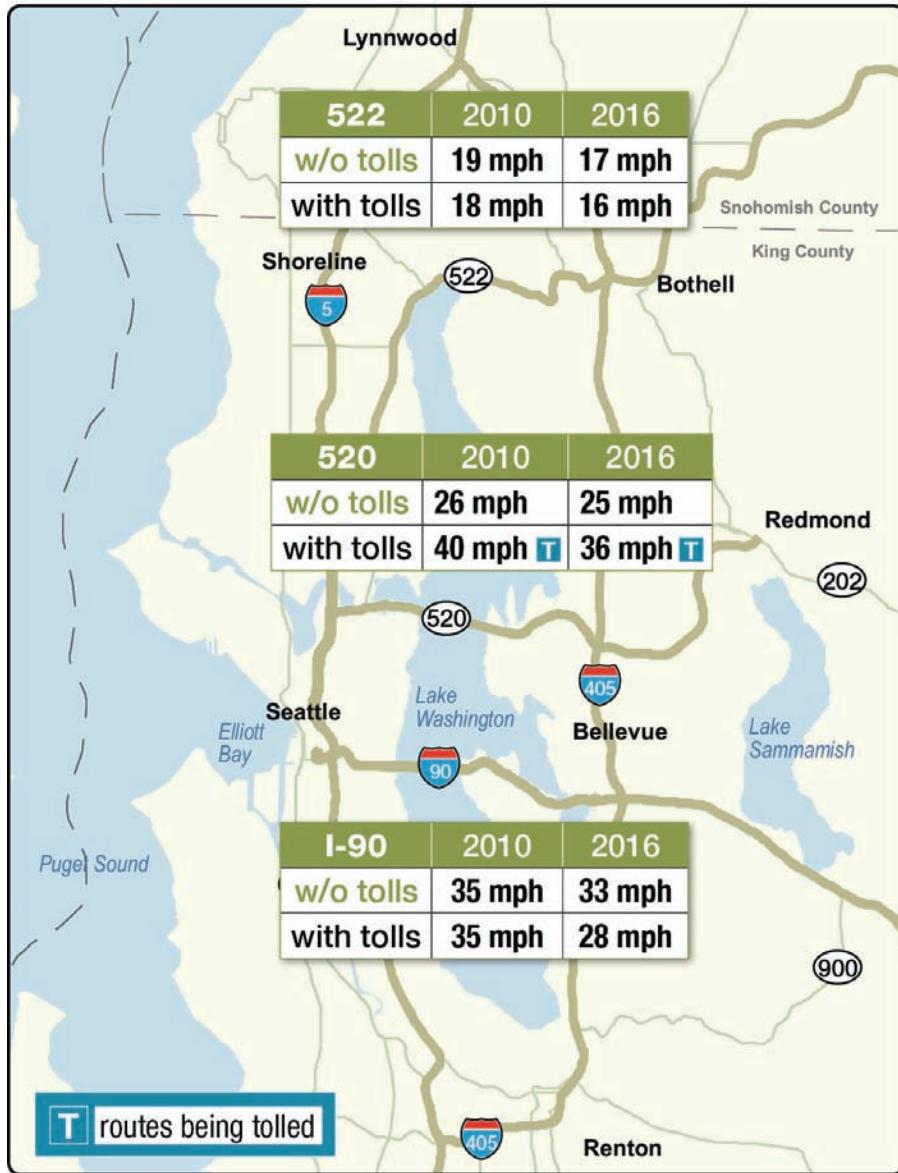
Estimated change in weekday 520 travel

Daily percent change from predicted vehicle volumes with no tolls	
Choose carpool and transit on 520	2.7%
Choose a different time on 520	1.1%
Choose a different route	5.8%
Choose a different destination (no lake crossing)	15.5%

Estimated change in weekday vehicle traffic on 90, 522, 5 and 405

	2016 without toll	2016 with toll
90 (Mid-span)	155,200	162,100
522 (Kenmore at NE 61 st)	52,000	52,800
I-5 (Downtown Seattle)	316,500	318,300
405 (Downtown Bellevue)	261,100	261,200

Scenario 2. Start tolling 520 bridge in 2010



Time of day	Toll you'd pay (each direction) 2007\$*
Morning (5–9 AM)	\$2.15
Mid-day (9 AM–3 PM)	\$1.05
Afternoon (3–7 PM)	\$2.95
Evenings (7–10 PM)	\$1.30
Nights (10 PM–5 AM)	\$0.75 (no charge until 2016)
Weekends	Varies from \$0.75 to \$1.50
Segment	No charge
<i>Estimated funding</i>	~\$900 Million

Scenario 2. Start tolling 520 bridge in 2010

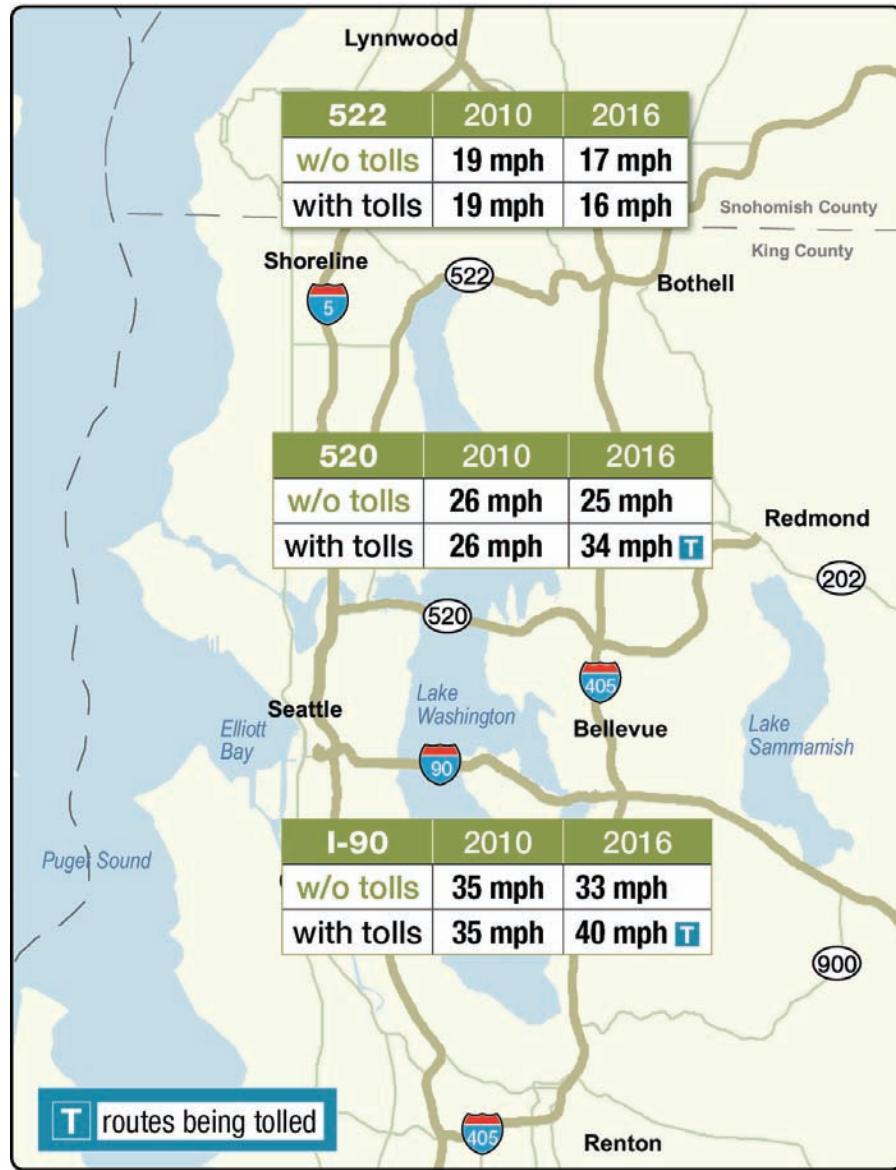
Estimated change in weekday 520 travel

Daily percent change from predicted vehicle volumes with no tolls	2010	2016
Choose carpool and transit on 520	3.2%	1.8%
Choose a different time on 520	2.0%	1.7%
Choose different route	7.2%	6.1%
Choose a different destination (no lake crossing)	1.7%	8.3%

Estimated change in weekday vehicle traffic on 90, 522, 5 and 405

	2010 with no tolls	2010 with tolls	2016 with no tolls	2016 with tolls
90 (Mid-span)	168,700	175,300	155,200	162,200
522 (Kenmore at NE 61 st)	50,000	51,400	52,000	52,900
I-5 (Downtown Seattle)	313,800	318,100	316,500	317,700
405 (Downtown Bellevue)	247,600	249,900	261,100	261,500

Scenario 3. Start tolling the new 520 bridge and 90 bridge in 2016



Time of day	Toll you'd pay (each direction) 2007\$*
Morning (5–9 AM)	\$2.60
Mid-day (9 AM–3 PM)	\$2.10
Afternoon (3–7 PM)	\$3.25
Evenings (7–10 PM)	\$1.95
Nights (10 PM–5 AM)	\$0.90
Weekends	Varies from \$0.75 to \$1.50
Segment	Varies from \$0.40 to \$0.75
<i>Estimated funding</i>	~\$2.3 Billion

Scenario 3. Start tolling the new 520 bridge and 90 bridge in 2016

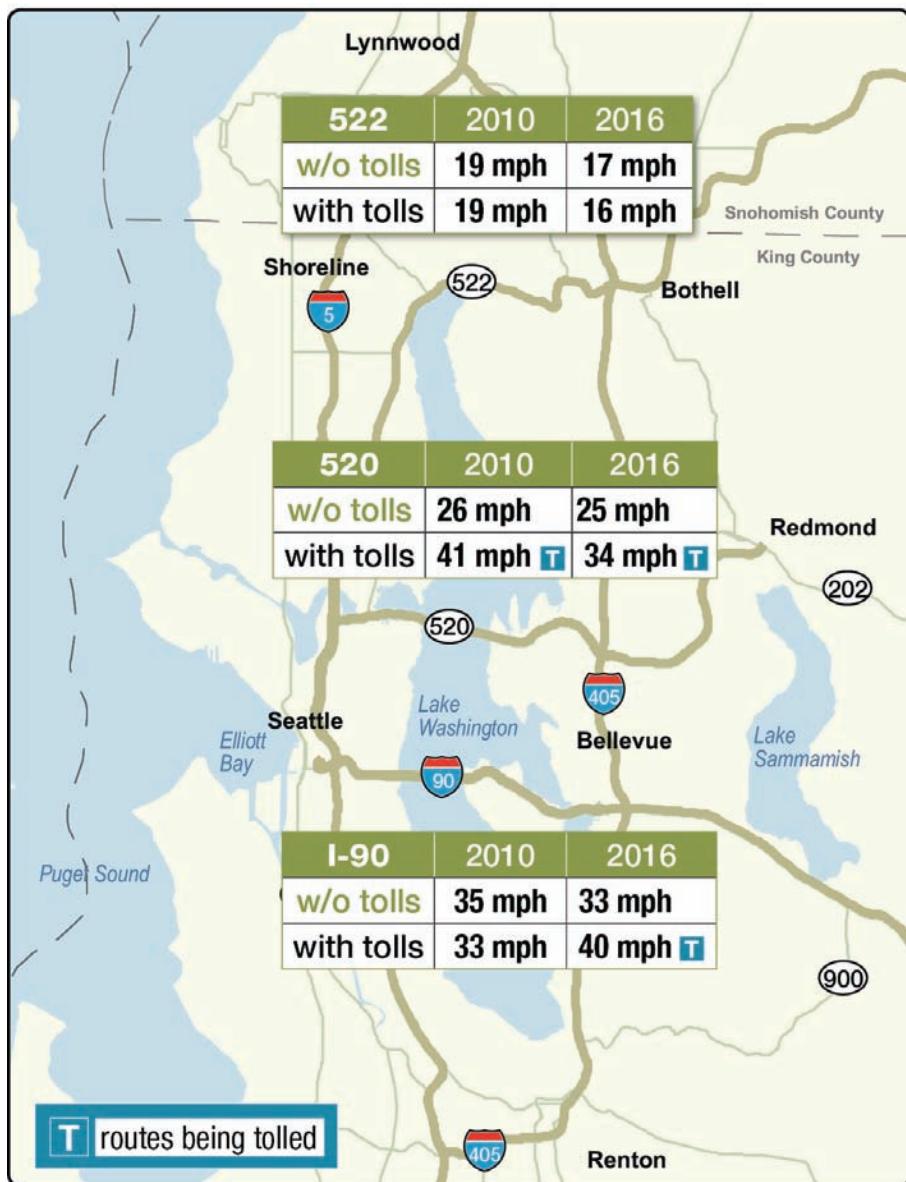
Estimated change in weekday 520 travel

Daily percent change from predicted vehicle volumes with no tolls	2016 on 520	2016 on 90
Choose carpool and transit on 520	2.6%	2.0%
Choose a different time on 520	0.5%	1.1%
Choose different route from 520 and 90		4.6%
Choose a different destination (no lake crossing)		22.3%

Estimated change in weekday vehicle traffic on 90, 522, 5 and 405

	2016 with no tolls	2016 with tolls
90 (Mid-span)	155,200	136,200
522 (Kenmore at NE 61 st)	52,000	54,700
I-5 (Downtown Seattle)	316,500	316,400
405 (Downtown Bellevue)	261,100	259,400

Scenario 4. Start tolling the 520 bridge in 2010, and 90 bridge in 2016



Time of day	Toll you'd pay in 2010 on 520 (one-way) 2007\$*	Toll you'd pay in 2016 on 520 and 90 (each direction) 2007\$*
Morning (5–9 AM)	\$2.60	\$2.60
Mid-day (9 AM–3 PM)	\$2.10	\$2.10
Afternoon (3–7 PM)	\$3.25	\$3.25
Evenings (7–10 PM)	\$1.95	\$1.95
Nights (10 PM–5 AM)	No charge	\$0.90
Weekends	\$0.75 - \$1.50	\$0.75 - \$1.50
Segment	No charge	\$0.40 - \$0.75
<i>Estimated funding</i>	<i>~\$2.5 Billion</i>	

Scenario 4. Start tolling the 520 bridge in 2010, and 90 bridge in 2016

Estimated change in weekday 520 and 90 travel

Daily percent change from predicted vehicle volumes with no tolls	2010 on 520	2016 on 520	2016 on 90
Choose carpool and transit	3.6%	2.6%	2.0%
Choose a different time	1.6%	0.5%	1.1%
Choose different route	7.5%		3.9%
Choose a different destination (no lake crossing)	19.6%		22.3%

Estimated change in weekday vehicle traffic on 90, 522, 5 and 405

	2010 with no tolls	2010 with tolls	2016 with no tolls	2016 with tolls
90 (Mid-span)	168,700	174,000	155,200	136,200
522 (Kenmore at NE 61 st)	50,000	51,600	52,000	54,700
I-5 (Downtown Seattle)	313,800	319,300	316,500	316,400
405 (Downtown Bellevue)	247,600	249,400	261,100	259,400

How much funding for a new 520 might come from tolls?

Preliminary results – more work needed

	Total Contribution from Tolls
Scenario 1. Start tolling 520 in 2016	~\$835 million
Scenario 2. Start tolling 520 in 2010	~\$900 million
Scenario 3. Start tolling the new 520 and 90 in 2016	~\$2,300 million
Scenario 4. Start tolling 520 in 2010, and 90 in 2016	~\$2,500 million

Financing assumptions:

Term: 30-year, general obligation/motor vehicle fuel tax bonds
Minimum Debt Service: Annual revenue 1.25 times debt service
Interest Rate: 5.9% for current interest bonds, 6.4% for capital appreciation bonds

Public Open Houses

July 29 – UW Bothell North Creek Events Center

July 31 – Spirit of Washington Events Center (Renton)

August 5 – Naval Reserve at South Lake Union (Seattle)

August 6 – Bellevue City Hall

August 7 – Kirkland Performance Center

August 13 – Mercer Island Community Center



Summary of Public Comments

Evaluation Criteria - Major Themes

Funding and revenue generation

- General trend to generating funding sooner rather than later
- General support for 2010 versus 2016
- People want to minimize cost for drivers
- Mercer Islanders generally oppose tolling I-90

Reasonableness of toll

- Few direct comments on the rates
- Those who oppose tolls, do so for varying reasons

Summary of Public Comments

Evaluation Criteria - Major Themes

Diversion

- Concerns north and south
- Concerns that segment tolls will divert traffic to local streets
- Mercer Island concern about diversion to I-90

Bridge Performance

- Need to replace bridge was mentioned more than bridge performance
- Interest in variable tolling to improve traffic/congestion

Low-income Bridge Users

- Concern for low income users
- Some suggest exemptions
- Some suggest improved transit options

Summary of Public Comments

Comment Sources

- Open Houses – 200 comments
- Web site, email, letters – 600 comments
- Sierra Club – Over 800 comments
- Mercer Island petition – Over 800 comments

Summary of Public Comments

Major Themes – open-ended questions

- General comments (includes all comments)
 - Concern with diversion and traffic (74%)
 - Generally favor tolling (44%)
 - Favor tolling both bridges (41%)
 - Variable tolling (40%)
 - Environmental impact and climate change (38%)
 - Taxes and cost issues (38%)
 - Oppose tolling I-90 (37%)
 - Concern about social justice/fairness (37%)
 - Concern about geographic equity/fairness (36%)
 - Oppose tolling I-90 to pay for 520 (35%)

Summary of Public Comments

Major Themes – open-ended questions

- General comments (excluding postcards and petitions)
 - Generally favor tolling (31%)
 - Concern with diversion and traffic (22%)
 - Support increasing transit service (20%)
 - Favor tolling both bridges (20%)
 - Comments on process and decision-making (19%)
 - Timing - 2010 v 2016 (19%)
 - Variable tolling (18%)
 - Exemptions for Mercer Island residents (14%)
 - Generally oppose tolling (14%)
 - Taxes and cost issues (14%)

Summary of Public Comments

Major Themes – open-ended questions

- General Comments (excluding Sierra Club)
 - Concern with diversion and traffic (59%)
 - Taxes and cost issues (56%)
 - Oppose tolling I-90 (55%)
 - Concern with social justice/fairness/equity (55%)
 - Concern with geographic equity (53%)
 - Oppose tolling I-90 to pay for 520 (52%)
 - Mercer Island dependence on I-90 (52%)
 - I-90 MOA (49%)
 - Generally favor tolling (14%)
 - Supports increased transit service (10%)

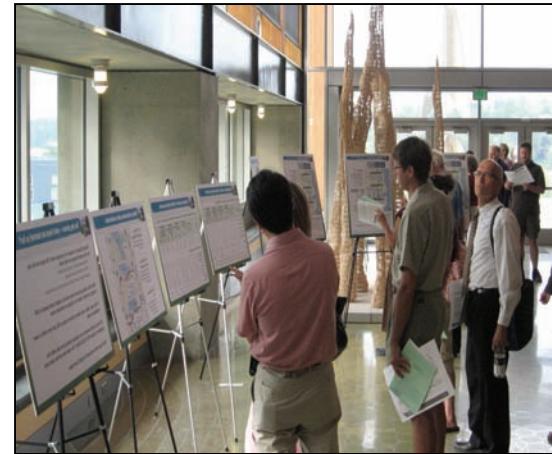
Summary of Public Comments

Major Themes – open-ended questions

- General Comments (excluding Mercer Island)
 - Generally favor tolling (66%)
 - Concern with diversion and traffic (62%)
 - Favors tolling both bridges (61%)
 - Variable tolling (60%)
 - Environmental impacts and climate change (57%)
 - Supports increased transit service (10%)
 - Process and decision-making (9%)
 - Timing (2010 v 2016) (9%)
 - Exemptions for Mercer Island residents (7%)
 - Generally oppose tolling (7%)

What happens next?

- Select new scenarios
- Analyze scenarios
 - travel modeling,
 - revenue analysis,
 - financial capacity
- Report back to public on results
- Conduct web and telephone surveys
- Develop mitigation recommendations for traffic diversion
- Compile summary of comments
- Develop report for governor and legislature



Proposed Additional Scenarios

- Start tolling 520 in 2016 with a flat rate toll
- Start tolling 520 in 2010 at a rate that attempts to fill the project funding gap
- Start tolling 520 in 2010 at a lower toll rate and increase the rate upon bridge completion in 2016
- Start tolling both 520 and I-90 in 2016 with a higher rate on 520 than on I-90
- Start tolling both 520 and I-90 in 2010
- Direct staff to develop a HOT lane scenario for I-90

How to contact the committee

Web: www.build520.org

Email: info@build520.org

Postal Mail:

520 Tolling Implementation Committee
c/o Puget Sound Regional Council
1011 Western Avenue, Suite 500
Seattle, Washington 98104 -1035